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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,258	06/20/2003	Paul B. MacCready	AVI 1005-04US	7491
28327	7590	06/02/2005	EXAMINER	
THE LAW OFFICE OF JOHN A. GRIECCI			HOLZEN, STEPHEN A	
703 PIER AVE., SUITE B #657			ART UNIT	
HERMOSA BEACH, CA 90254			PAPER NUMBER	

3644

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/600,258		MACCREADY ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Stephen A. Holzen		3644	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-39 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. ____.  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.   | 6) <input type="checkbox"/> Other: ____.                                    |

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-20, drawn to an aircraft, classified in class 244, subclass 59.
  - II. Claims 21-34, drawn to an aircraft and power system, classified in class 244, subclass 135R.
  - III. Claims 35-39, drawn to an aircraft, classified in class 244, subclass 23R.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are two independent and distinct inventions, neither requiring the particulars of the other. Invention I does not require a heat source for controlling a boiling rate of the reactant. Invention II does not require the controller to regulate the reaction pressure.

3. Inventions I and III are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination (the fuel source of the combination is not necessarily hydrogen and oxygen). The subcombination has separate utility such as Hybrid Powered Systems (as discussed in applicant's specification on page 14, line 13).

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4. Inventions II and III are two independent and distinct invention, neither requiring the particulars of the other. Invention II does not require hydrogen and an oxygen source. Invention III does not require a heat source for controlling a boiling rate of the reactant.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. Upon election of one of inventions I-III above, applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claims are generic.

- a. Figure 1A
- b. Figure 7A
- c. Figure 8
- d. Figure 9
- e. Figure 10A
- f. Figure 11A
- g. Figure 11C

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2. Upon election of one of groups a-g above, applicant is required under 35 U.S.C. 121 to elect a single disclosed species of wing constructions for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

h. Figure 5

i. Figure 6

3. Upon election of one of groups h-i above, applicant is required under 35 U.S.C. 121 to elect a single disclosed species of Fuel Tank suspension Mechanisms for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

j. Trusses only

k. Wires only

l. Trusses and Wires

4. Upon election of one of groups j-l above, applicant is required under 35 U.S.C. 121 to elect a single disclosed species of Hydrogen Fuel Source for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

m. Liquid Fuel Tanks

n. Gaseous Tanks

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5. Upon election of one of groups m-n above, applicant is required under 35 U.S.C. 121 to elect a single disclosed species of Power Systems (see page 12, line 6) for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

- o. Fuel Cell
- p. Solar Cell
- q. Turbines
- r. Reciprocating Engines
- s. Hybrid Combines thereof (as set for on page 14 of the specification)

6. Upon election of one of groups o-s above, applicant is required under 35 U.S.C. 121 to elect a single disclosed species of wing constructions for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

- t. Stiff Wing (as disclosed on page 17, line 14)
- u. Counteracting Moments (as disclosed on page 17, line 14)

7. Upon election of one of groups t -u above, applicant is required under 35 U.S.C. 121 to elect a single disclosed species of Aircraft control (as disclosed on page 19, line 13) for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

- v. Autonomous System

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w. Remote Powering

8. Upon election of one of groups v-w above, applicant is required under 35 U.S.C. 121 to elect a single disclosed species of driving a propeller (see page 20, line 19) for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

x. Power source directly drives the propeller

y. Power source indirectly drives the propeller, through an attached generator.

9. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record

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showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

10. A call was made to John Griecci on 5/20/2005 to request an oral election however did not result in an election over the phone.

11. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

12. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen A. Holzen whose telephone number is 571-272-6903. The examiner can normally be reached on M-F 7:30 - 5:00.



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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harvey E Behrend can be reached on 571-272-6871. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sah

  
**PETER M. POON**  
**SUPERVISORY PATENT EXAMINER**

5/31/05